

# Recovery Plan Action Status

Plan Name: Dwarf Wedge Mussel

Plan Status: Final

Plan Date: 08-Feb-93

Lead Agency: USFWS

Lead Office: New England Ecological Services Field Office

(2603)  
(223-2541)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Dwarf wedgemussel (Alasmidonta heterodon)	1	1	Conduct additional population and habitat surveys	Ongoing Current	FY 2006	FY 2009	Contract	Research: Population Assessment	Contract, Internal Technical Assistance	Surveys have been contracted in NY, CT, MA and NH by the FWS, state agencies and applicants for FERC relicenses (in NH) for FY 10 and FY 11. Surveys conducted in FY 09 resulted in either new locations or range expansion of existing river reaches.
Dwarf wedgemussel (Alasmidonta heterodon)	1	10	Develop an interim approach to deal with pesticide usage	Not Started			Environmental Protection Agency , Regional Office 5	Research: Environmental Contaminants	Contract, Internal Technical Assistance	Awaiting results of toxicity studies. Unknown how/who will implement this action in the near future. Costs unknown until project proposal is developed.
Dwarf wedgemussel (Alasmidonta heterodon)	3	11	Develop an educational program for school children etc	Not Started			The Nature Conservancy, Contract , State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Other: Information and Education	Contract	General mussel educational programs are already available. May want to remove this task from future revised plan.
Dwarf wedgemussel (Alasmidonta heterodon)	3	12	Develop an educational program aimed at pesticide users	Not Started			Environmental Protection Agency , Natural Resources Conservation Service , State Department of Agriculture, USFWS Regional Office 4 - Atlanta, Regional Office 5	Work type not yet selected	Contract, Graduate Student	Costs unknown, original cost estimates are about 10 years old.

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Dwarf wedgemussel (Alasmidonta heterodon)	3	13	Facilitate river watch programs	Not Started			National Park Service, USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Other	Labor type not yet selected	Plus \$1000/yr for 7 more years
Dwarf wedgemussel (Alasmidonta heterodon)	1	14	Conduct life history studies and identify requirements of the species	Ongoing Current	FY 2010		Contract , USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs, Recovery Implementation Group, St. Anselm College, USGS-Leetown	Acquisition: Easement, Acquisition: Management Agreement, Management: General, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Population Monitoring, Other, Research: Climate Change, Research: Demographic Studies, Research: Ecosystem Studies, Research: General, Research: Genetics, Research: Habitat Requirements, Research: Habitat Status, Research: Population Assessment, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Basic life history studies completed, some host fish species identified (Michaelson, D.L. 1993), (White, B, 2009 and Wicklow B. unpublished). USGS is currently investigating the effect of flow and cold water refugia on DWM physiology and behavior.
Dwarf wedgemussel (Alasmidonta heterodon)	3	15	Determine feasibility of reestablishing populations within historic range	Discontinued	FY 2000 - FY 2004		USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs, Virginia Polytechnic Institute and State University	Research: Habitat Requirements	Graduate Student	Ongoing genetics study to examine population structure if reintroduction/introductions are determined to be necessary.

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Dwarf wedgemussel (Alasmidonta heterodon)	1	16	Monitor population levels and habitat conditions	Ongoing Current	FY 2006		National Park Service, U.S. Army Corps of Engineers, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Research: Population Assessment	Contract	Plus \$30K/yr in 1997, 2000, 2002. Intensive monitoring being conducted on Ashuelot River in NH by ACOE.
Dwarf wedgemussel (Alasmidonta heterodon)	3	17	Assess overall success of the program and recommend appropriate actions	Partially Complete	FY 2007		USFWS Regional Office 4 - Atlanta, Regional Office 5, Recovery Implementation Group	Research: Other Information	Species Expert	Recommendations for specific tasks as well as the need to revise the recovery plan were provided in the 5 year status review completed in FY07.
Dwarf wedgemussel (Alasmidonta heterodon)	1	2	Identify essential habitat and key areas in need of protection	Ongoing Current	FY 2006	FY 2007	National Park Service, The Nature Conservancy, Contract , USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Research: Habitat Status	Internal Field Assistance	Major stretches of the Delaware River and associated tributaries have been searched and mapped for A. heterodon. The Farmington River in CT will be surveyed for conservation opportunities in 2006 and the Connecticut River is being surveyed to identify conservation opportunities in FY 2007 and 2008.
Dwarf wedgemussel (Alasmidonta heterodon)	2	3	Review literature and compile information on point and non-point pollution; map pollution sources	Ongoing Current	FY 2009		Environmental Protection Agency , USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs, State Water and Control Boards	Management: Other	Labor type not yet selected	FWS Contaminants Program will have lead - should revise these comments. EC won't have lead. This is a wide ranging species and it will be difficult to produce maps for all of the sites.
Dwarf wedgemussel (Alasmidonta heterodon)	2	4	Conduct water quality and contaminants sampling	Not Started			USFWS Regional Office 4 - Atlanta, Regional Office 5	Research: Environmental Contaminants	Internal Technical Assistance	Plus \$25K in 1996 - need to update. Only a few sites have been tested.

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Dwarf wedgemussel (Alasmidonta heterodon)	1	5	Conduct toxicity tests of pesticides and other contaminants	Not Started			Environmental Protection Agency , USFWS Regional Office 4 - Atlanta, Regional Office 5, Virginia Polytechnic Institute and State University, USGS-Leetown	Work type not yet selected	Labor type not yet selected	Cherry D. et al. 2005. Chlorine toxicity to early life stages of freshwater mussels. Final Report in fulfillment of USGS SSP Project ID 01-R5-09. Virginia FO report.
Dwarf wedgemussel (Alasmidonta heterodon)	1	6	Continue to utilize existing legislation and regulations to protect the species	Ongoing Current	Prior to FY 1995		National Park Service, U.S. Federal Energy Regulatory Commission, U.S. Army Corps of Engineers, Environmental Protection Agency , State Department of Agriculture, USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs, State Water and Control Boards	Other: Regulations	Species Expert	Plus \$10K/yr for 7 more years
Dwarf wedgemussel (Alasmidonta heterodon)	2	7	Encourage designation of wild and scenic rivers, and regulations to protect water quality	Ongoing Current	FY 2008		National Park Service, USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs, State Water and Control Boards	Other: Regulations	Labor type not yet selected	Plus \$30K/yr for 3 more years - need to update this info from old implementation schedule.

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Dwarf wedgemussel (Alasmidonta heterodon)	1	8	Work with landowners and others to solicit support for protection of the species	Ongoing Current			The Nature Conservancy, Contract , Natural Resources Conservation Service , State Department of Agriculture, USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Acquisition: Lease	Contract, Species Expert	CT state staff have initiated landowner contacts for two streams with declining DWM populations in an effort to improve habitat conditions and increase the likelihood of population viability.
Dwarf wedgemussel (Alasmidonta heterodon)	1	9	Provide long-term protection of essential habitats	Not Started			National Park Service, The Nature Conservancy, Environmental Protection Agency , Natural Resources Conservation Service , USFWS Regional Office 4 - Atlanta, State Natural Heritage Programs and natural resource agencies, Regional Office 5, State nongame and Endangered Species Programs	Work type not yet selected	Labor type not yet selected	Amount and cost of land acquisition, land lease or conservation easements unknown